# BOTANICAL SOCIETY OF EDINBURGH



QK B4 V.41

# TRANSACTIONS

Vol 41 1970 - 1972

Editors: P. C. Harper, J. B. Kenworthy, G. Hadley

Published by
THE BOTANICAL SOCIETY

© The Botanical Society of Edinburgh, 1972

## CONTENTS

9

27

31

43

51

59 61

65

71

85

95

97 99

103 105

109

119

125

139 149

155

165

189

197

201 213

219

227

231

247

249

261

263

265

269

Cryptogamic Section Report for 1970

Proceedings of the Society

Committee for the Study of the Scottish Flora

Part 1 issued November 1970 Editorial Note Foreword from H.R.H. The Duke of Edinburgh Page The Scottish Arctic Alpine Botany Society. By J. R. Matthews The Identification of the Seeds and Fruits of Common Scottish Aquatic Herbs. By J. T. Swarbrick Saxifraga hirculus L. in north-east Scotland. By D. Welch The Marine Algae of St. Kilda. By Roy Watling, Linda M. Irvine and Trevor A. Norton Pollen Diagrams from three Buried Peats in the Aberdeen Area. By S. E. Durno A Bryophyte Flora of Handa Island, Sutherland. By Brian S. Brookes A Discomycete Parasitic on Thamnolia vermicularis. By Alan K. Walker The Role of Marginal Hydathodes in Foliar Water Absorption, By D. Wood The Importance of Microorganisms to Colonising Plants, By J. L. Harley Plants and Industrial Waste. By A. J. Bradshaw Some effects of Animal Grazing and Browsing on Vegetation. By I. A. Nicholson Notes on the Scottish Flora Alpine Section Report for 1969 Cryptogamic Section Report for 1969 Committee for the Study of the Scottish Flora Proceedings of the Society Part 2 issued November 1971 Determination in Plant Development, By P. F. Wareing The Adaptive Significance of a Wide Altitudinal Range for Montane Species. By D. Wood Ballast Aliens in South Fife. By G. H. Ballantyne Ecological Changes in the Loch Lomond Region. By Ruth M. Tittensor Fertiliser Response of Vegetation on Ultrabasic Terraces on Rhum. By R. E. C. Ferreira and P. Wormell The Flora of Danna: a Supplement. By A. G. Kenneth The Agaries of St. Kilda. By Roy Watling and M. J. Richardson The Plant Kingdom as a Source of Drugs. By J. W. Fairbairn Some New Records of Ascomycetes from Scotland. By J. C. Krug The Genus Abies in Scotland. By A. F. Mitchell Studies on Synthetic Hybrids of British Species of Senecio: I Senecio viscosus L. ×S. vulgaris L. By P. E. Gibbs Energy Metabolism in Green Cells. By J. A. Raven Food Preference Experiments with Captive Ptarmigan. By C. F. Summers. A Study of a Population of Birches in Glen Gairn. By Ian R. Brown and Graham Tuley Notes on the Scottish Flora Tenth Research Symposium: Heriot-Watt University Edinburgh 1970 Alpine Section Report for 1970

### Part 3 Issued June 1972

273 Foreword. By J. R. Matthews

279 Where have all the Gentians gone? By N. M. Pritchard

293 Philip Miller and the Plants from the Chelsea Physic Garden presented to the Royal Society of London, 1723-1796. By W. T. Stearn

309 Some Metabolic Aspects of Ecology. By R. M. M. Crawford

323 On Some Fossil Species of Hemiaulus. By R. Ross

- 343 A Prostrate Species of Myricaria in Eastern Himalaya and Yunnan. By Hiroshi Hara
- 347 Meconopsis taylorii, a new Species from Nepal. By L. H. J. Williams
- 351 Thomas J. Booth and the Type Localities of his Indian Rhododendrons described by Nuttall. By Frank Ludlow
- 365 Evolutionary Recall in Hypericum (Guttiferae)? By N. K. B. Robson

385 Fungi on Scottish Bryophytes. By D. M. Henderson

- 393 Plumular Protection and some related Aspects of Seedling Behaviour. By B. L. Burtt
- 401 A Synopsis of the Old World Species of Trichospermum Blume (Tiliaceae). By A. J. G. M. Kostermans

#### Part 4 issued November 1972

- 431 An Annotated Flora of the Monach Isles National Nature Reserve, Outer Hebrides. By F. H. Perring and R. E. Randall
- 445 Anthelion Julaceae—A New Alliance of Sub-Alpine Spring Vegetation.
  By David W. Shimwell
- 451 A Review of the Sub-Species carpatica and tortuosa within the Species Betula pubescens Ehrh. By A. S. Gardiner
- 461 The Effect of Shade on the Photosynthetic Pigments of Needles on Trees of Pinus sylvestris ssp. scotica grown under Field Conditions. By A. G. Hepburn

469 Nucleolar Behaviour during Division in the Homobasidiomycetidae. By Mary H. Galbraith and E. G. Duncan

476 Past and Present Vegetation in Relation to Solifluction on Ben Arkle, Sutherland. By I. D. White and D. N. Mottershead

491 Light on Freshwater Macrophytes. By D. H. N. Spence

- 507 A Preliminary Survey of Beanrig Moss, a Fen in South Scotland. By R. E. Daniels
- 517 A Study of Hybrids between Betula pubescens Ehrh, and Betula nana L. from Sutherland—an Integrated Approach, By J. B. Kenworthy, D. Aston and S. A. Bucknall
- 541 A note on the Bog Flora of Wigtownshire. By D. A. Goode

547 Notes on the Scottish Flora

555 Eleventh Research Symposium: Stirling University, 1971

565 Alpine Section Report for 1971

567 Committee for the Study of the Scottish Flora

571 Proceedings of the Society

577 Index to Volume 41